

REMARKS

This response is offered in reply to the Office Action of March 3, 2004.

Applicants acknowledge and appreciate the indicated allowability of claims 24 and 25 on page 3 of the office action. Applicants have added new claim 27 which combines features of claims 23 and 24 and new claim 28 which includes features of claim 25. New claims 27 and 28 are believed to be in allowable condition. New claims 26, 29 and 30-32 also are added and believed to be in allowable condition.

Applicants have amended the specification to address the informalities noted by the examiner in the first paragraph of page 2 of the office action. Favorable action is requested.

Applicants would point out to the examiner that the transmittal papers of the divisional application requested on page 2 thereof amendment of the application to reference parent application Serial No. 08/197,497.

On page 2 of the office action, claims 23, 24, and 25 are rejected under 35 USC 112, second paragraph as indefinite. Applicants have amended claims 23, 24, and 25 in a manner believed to overcome the Section 112 rejection.

Reconsideration of the Section 112 rejection is requested.

On page 3 of the office action, claim 23 is rejected under 35 USC 102(b) as anticipated by the Sarin US Patent 4 890 574.

Applicants point out that the '574 patent does not disclose apparatus comprising the combination of features set forth in pending claim 23; namely, coating retort means, means for flowing a halide precursor gas in contact with a first source comprising a metal to form a first coating gas wherein the first source is disposed outside the coating retort means, and means for flowing the first coating gas into the coating retort means in contact with a source of a reactive element disposed inside the coating retort means to convert a portion of the first coating gas to a halide coating gas of the reactive element that contacts a substrate with the first coating gas to codeposit the metal and the reactive element on the substrate.

The '574 patent is silent with respect to such a combination of features as set forth in pending claim 23. In contrast to Applicants' pending claim 23, the '574 patent introduces via a tube 10 a precursor halide gas (e.g. HCl or chlorine) in a carrier gas into an internal reactor 8 or 8a located inside a reactor dome 2 and introduces via a tube 12 reactant gases (e.g. carbon dioxide, water, nitrogen, etc.) to react in chamber 3 with the halide gas from reactor 8 to produce a ceramic (e.g. metal oxide or nitride) overlay coating on the substrate 14. Applicants note that in the '574 patent, the reactant gas (e.g. carbon dioxide, water, nitrogen, etc.) introduced via gas inlet 5 (i.e. tube 12) mixes with the gas produced by internal reactor 8 or 8a at regions 7, 11. However, the reactant gas introduced via tube 12 does not convert a portion of the gas produced by internal reactor 8 or 8a to a halide coating gas of a reactive element, but reacts to form a metal oxide or nitride reaction product deposited on substrate 14.

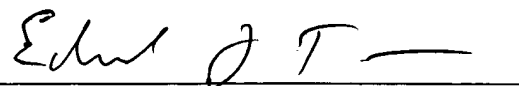
The '574 patent at column 6, lines 39-42 describes zirconium chloride gas entering reaction chamber 3 from a source outside the reactor through coaxial tube 9. However, tube 9 is located upstream of the internal reactor 8a such that the zirconium chloride gas does not contact the metal in the internal reactor 8a in a manner contrary to and teaching away from Applicants' claim 23.

Reconsideration of the Section 102(b) rejection of claim 23 is requested.

Applicants believe pending claims 23-32 are in condition for allowance, and action to that end is requested.

The Commissioner is authorized to charge any fee for new claims 26-32 to my deposit account No. 20-1124.

Respectfully submitted,



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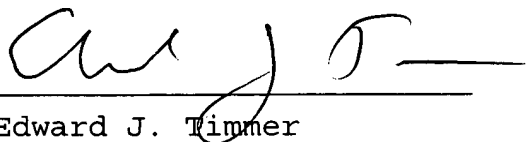
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CERTIFICATE OF MAILING

I hereby certify that this correspondence and enclosures are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents P.O. Box 1450, Alexandria, VA 22313-1450, on May 26, 2004.


Edward J. Timmer